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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--------------------------------------------------------------------------------------|-------------|-------------------------|------------------------|------------------|
| 09/895,234 | 06/29/2001 | Patrick Joseph Bohrer | AUS920010123US1 | 8647 |
| 7590 | 07/29/2003 | | | |
| Joseph P. Lally DEWAN & LALLY, L.L.P. P.O. Box 684749 Austin, TX 78768-4749 | | | EXAMINER CHEN, TE Y | |
| | | ART UNIT 2171 | PAPER NUMBER | |
| | | DATE MAILED: 07/29/2003 | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-----------------|---------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/895,234 | BOHRER ET AL. |
| | Examiner | Art Unit |
| | Susan Y Chen | 2171 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 29 June 2001.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-24 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-24 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

| | |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1 - 24 are presented for examination.

Specification

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicants' cooperation are requested in correcting any errors of which applicants may become aware in the specification. Also, It is noted that the present specification does not contain line numbers. For ease of reference by both Examiner and Applicant all future correspondence should include the recommended line numbering.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7, 10-16 and 18-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Tzelnic et al. (6,061,504).

As to claims 1-2, 10 and 18, Tzelnic et al. (hereinafter referred as Tzelnic) discloses a data processing system with means and method to perform the following functions, comprising:

- at least one disk [e.g. the integrated cached disk array storage subsystem (23), Fig. 1];
- a server [e.g., the media server (20), the stream server(21), etc. Fig. 2;] connected to a network [e.g., the Network (25), Fig. 2] and having access to the disk, wherein the server is further connected to a client [e.g., the client (54), Fig. 2] via a TCP connection [e.g., see col. 8; lines 55-61];
- wherein, the system includes the processing as following:
 - to determine the network transfer rate of a network connection [e.g., see col. 6, lines 24-32; the pre-staging processing of col. 6, lines 34-43]; and
 - retrieving a portion of the requested data from a disk via a server in responsive to a client request via the network connection [e.g., see col. 7, lines 48-52];
 - initiating transmission of the first part of data to the client via the network [e.g., see the advanced prefetch scheduling at col. 20, lines 30-50; the modules 171-176, Fig. 17];

- calculating the time required to transmit the portion of data to the client based on the network transfer rate [e.g., see the module 174, col. 23, lines 39-54];
- determining when to retrieve a subsequent portion of the requested data from the disk, based on whether the calculated time is expired [e.g., see col. 12, lines 26-43].

As to claims 3, 12 and 19, the claimed feature to retrieve a first block for retrieving a first portion of the requested data is a standard default disk operation.

As to claims 4, 13 and 20, Tzelnic further disclosed that the system includes delaying retrieval of subsequent portion until the calculated time is expired to minimize the server memory required for completing the file request [col. 12, lines 44-67].

As to claims 5, 14 and 21, Tzelnic further disclosed that the system includes determining when to retrieve the subsequent portion based on the distance between the current head position and the disk location of the subsequent portion of data [col. 20, lines 30-36, line 38-50].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2171

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-9 23-24 and 15-17, are rejected under 35 U.S.C. 103(a) as being unpatentable over Tzelnic et al. (6,061,504) in view of Henson et al. (U.S. Patent No. 5,465,343).

As to claims 6, 15 and 23, Tzelnic discloses all the features as cited above in claims 1,10 and 18, except expressively disclosed that the system includes monitoring the position of the disk head while the first part of data is being transmitted to the client.

However, Henson et al. (hereinafter referred as Henson) disclosed a disk data retrieving system which monitors the position of the disk head while the first part of data is being transmitted to the client [e.g., the microcontroller at col. 3, line 58 – col. 4, line 2]. Thus, it would have been obvious to an ordinary skilled person in the art, at the time the invention was made, to modify Tzelnic's system admission control policy [col. 2, line 31-35, lines 51-59] with the monitor (or the microcontroller) taught by Henson, because by doing so, the modified stream servers would permit a supervising processing, which monitors the flow of absolute position servo data and user data blocks to and from the disk via the head structure and verify the integrity of, or correcting errors in data retrieved from the disk.

As to claims 7 and 16, Tzelnic and Henson disclose all the features as cited above, Henson further disclose that the retrieving of a subsequent portion of data for the next request , is based on the determination of the determination of head position [e.g., see the data transducer head, col. 7, lines 61-65].

Allowable Subject Matter

Claims 8-9, 17 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Moon et al. (U.S. Patent No. 4,669,004), which disclosed a high performance, low cost rotating disk data storage subsystem with embedded sector servo; Vahalia et al. (U.S. Patent No. 5,933,603) which disclosed a video file server maintaining sliding windows of a video data set in random access memories of stream server computers for immediate video-on-demand service beginning at any specified location; Iwasa et al. (U.S. Patent No. 5,887,128) which disclosed a system for redundant disk storage system with offset.

To expedite the process of re-examination, the examiner requests that all future correspondences in regard to overcoming prior art rejections or other issues (e.g. 35 U.S.C. 112) set forth by the Examiner prior to the office action, that applicant should provide and link to the most specific page and line numbers of the disclosure where best support is found (see 35 U.S.C. 132).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan Chen, whose telephone number is (703) 308-1155. The examiner can normally be reached Monday through Friday from 7:30 A.M. to 4:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahić, can be reached at (703) 308-1436. The fax phone numbers for this group are: (703) 746-7238 (After Final Communication); (703) 746-7239 (Official Communications); and (703) 746-7240 (For Status Inquiries, Draft Communication).

Any inquiry of a general nature of relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

Susan Chen

July 15, 2003

Wang
WAYNE AMSBURY
PRIMARY PATENT EXAMINER